DEEP BLEACHED SILICEOUS SAND

General Description: *Thick sand with a bleached A2 layer, becoming calcareous and slightly more clayey with depth*

Landform: Undulating plains with sandhills.

Substrate: Windblown Molineaux Sand.

Vegetation: Mallee

Type Site:

Site No.:	MM034	1:50,000 mapsheet:	7027-4 (Karte)
Hundred:	Bews	Easting:	463000
Section:	150	Northing:	6100000
Sampling date:	26/11/1991	Annual rainfall:	340 mm average

Crest of moderate sandhill, loose surface, no stone.

Soil Description:

Depth (cm)	*Description*
0-6	Dark greyish brown loose sand. Abrupt to:
6-18	Orange loose sand. Clear to:
18-56	Very pale brown (bleached) loose sand. Clear to:
56-73	Orange sand with loamy sand lamellae. Abrupt to:
73-90	Orange and pale brown sandy loam. Clear to:
90-135	Orange and pale brown moderately calcareous sandy loam. Gradual to:
135-162	Orange and pale brown moderately calcareous sandy loam. Diffuse to:
162-210	Red moderately calcareous sandy clay loam.

Classification: Calcareous, Argic, Bleached-Orthic Tenosol; thin, non-gravelly, sandy / loamy, very deep

Summary of Properties

Drainage: Rapidly drained. The soil never remains saturated for more than a few hours.

Fertility: Inherent fertility is very low, as indicated by the exchangeable cation data. Although only copper and probably nitrogen are deficient at the sampling site, phosphorus, zinc and manganese deficiencies are also likely. Organic carbon levels are very low.

pH: Slightly acidic at the surface, slightly alkaline with depth.

Rooting depth: 56 cm in pit.

Barriers to root growth:

Physical: No physical barriers.

Chemical: Low nutrient retention capacity is main limitation.

Waterholding capacity: 35 mm.

Seedling emergence: Usually impaired by water repellence.

Workability: Soft to loose surface is easily worked.

Erosion Potential:

Water: Low.

Wind: Moderately high.

Laboratory Data

Depth cm	pH H_2O	pH $CaCl_2$	CO_3 %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	Boron mg/kg	Trace Elements mg/kg (DTPA)				CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
										Cu	Fe	Mn	Zn		Ca	Mg	Na	K	
Paddock	6.3	5.9	0.8	0.07	0.51	0.28	37	190	1.0	0.09	11	1.3	1.2	2.8	1.77	0.53	0.14	0.33	na
0-6	6.1	5.9	<0.1	0.06	0.45	0.35	37	140	1.0	0.08	12	1.8	0.75	2.3	2.01	0.54	0.11	0.29	na
6-18	6.3	5.9	<0.1	0.05	0.18	0.10	19	130	0.6	0.06	6.8	1.6	0.61	2.1	1.48	0.51	0.11	0.28	na
18-56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56-73	6.7	6.2	<0.1	0.05	0.20	0.06	<2.0	130	0.7	0.07	5.0	0.07	0.10	2.9	2.67	0.76	0.07	0.20	na
73-90	6.8	6.4	<0.1	0.05	0.36	0.06	<2.0	150	0.7	0.06	4.4	0.05	0.06	3.9	3.38	1.63	0.09	0.23	2.3
90-135	7.6	6.8	2.9	0.07	0.56	0.04	<2.0	130	1.5	0.08	4.4	0.10	0.07	4.5	2.87	2.53	0.18	0.39	4.0
135-162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
162-210	9.4	7.8	2.7	0.25	0.85	0.07	<2.0	390	6.9	0.22	4.6	0.16	0.05	6.1	3.22	3.87	1.84	0.81	30.2

Note: Paddock sample bulked from cores (0-10 cm) taken around the pit.
CEC (cation exchange capacity) is a measure of the soil's capacity to store and release major nutrient elements.
ESP (exchangeable sodium percentage) is derived by dividing the exchangeable sodium value by the CEC.

Further information: DEWNR Soil and Land Program